REMARKS

Favorable reconsideration of this application, in light of the following discussion and in view of the present amendment, is respectfully requested.

Claim 23 is amended. Claim 24 is added. Claims 11-21, 23 and 24 are pending.

Entry of Amendment under 37 C.F.R. § 1.116

The Applicant requests entry of this Rule 116 Response because: the amendments were not earlier presented because the Applicant believed in good faith that the cited references did not disclose the present invention as previously claimed; and the amendment does not significantly alter the scope of the claim and places the application at least into a better form for purposes of appeal.

The Manual of Patent Examining Procedures (M.P.E.P.) sets forth in Section 714.12 that "any amendment that would place the case either in condition for allowance or in better form for appeal may be entered." Moreover, Section 714.13 sets forth that "the Proposed Amendment should be given sufficient consideration to determine whether the claims are in condition for allowance and/or whether the issues on appeal are simplified." The M.P.E.P. further articulates that the reason for any non-entry should be explained expressly in the Advisory Action.

I. Claim Objections

Claim 23 is objected to because of informalities. Claim 23 is amended in light of the Examiner's comments, and accordingly, withdrawal of the claim objection is respectfully requested.

II. Rejection under 35 U.S.C. § 102

In the Office Action, at page 2, numbered paragraph 3, claims 11, 12, 21 and 23 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Publication No. 2004/0036157 to Akram et al. This rejection is respectfully traversed because Akram does not discuss or suggest:

> a single active semiconductor component arranged on the substrate and having an outer electrical contact surface,...wherein...a layer of electrically insulating film is laminated onto the semiconductor component and the substrate in such a way that the electrical contact is exposed,

as recited in independent claim 11.

Akram discusses a semiconductor component with on board capacitor and method of fabrication. Akram shows and discusses a die 12 including integrated circuits 24 formed in a semiconducting substrate. The die 12 includes die contacts 16 in electrical communication with the integrated circuits 24. The die 12 includes internal conductors 22 in electrical communication with the integrated circuits 24. The die 12 also includes a passivation layer 18 which can comprise an electrically insulating material. The passivation layer 18 includes openings 68 aligned with the die contacts 16.

First, Akram does not discuss or suggest a single active semiconductor component arranged on the substrate and having an outer electrical contact surface. The Examiner alleges that integrated circuit 24 corresponds with the single active semiconductor component. However, integrated circuit 24 is formed in the semiconducting substrate, and thus is not arranged on the substrate.

In addition, integrated circuit 24 does not have an outer electrical contact surface. The Examiner alleges that power die contact 16 corresponds with the outer electrical contact surface of the integrated circuit 24. The Applicants respectfully disagree.

As the substrate 12 is formed with internal conductors 22 in electrical communication with the surface of the integrated circuit 24, the integrated circuit 24 does not have an outer electrical contact surface that is capable of being in contact with lower electrode 34. As the surface of the integrated circuit 24 is used, and as the surface is in contact with the internal conductor 22, the surface of the integrated circuit 24 cannot be construed to have an outer electrical contact surface.

As to the Examiner's assertion that the die contact 16 is the outer electrical contact surface of the integrated circuit 24, the Examiner is implicitly alleging that the combination of the integrated circuit 24, the internal conductor 22 and the die contact 16 correspond with a semiconductor component. The Applicants respectfully disagree. Claim 11 recites "a single active semiconductor component [emphasis added]." However, the die contact 16 having an outer electrical contact surface, in addition to the internal conductor 22 and the integrated circuit 24 are not altogether a single active semiconductor component.

Further, Akram does not discuss or suggest that a layer of electrically insulating film is laminated onto the semiconductor component and the substrate in such a way that the electrical contact is exposed. The passivation layer 18, which is located on portions of die contact 16, is not laminated onto the integrated circuit 24 in such a way as to expose the die contact 16, alleged by the Examiner to correspond with the semiconductor component. The passivation

layer 18 includes openings 68 aligned with the die contact 16, but the passivation layer is not laminated onto either the integrated circuit 24, which is formed in the substrate, or the die contact 16. Akram includes no discussion of laminating the passivation layer 18 onto the surface of either die 12 or die contact 16.

Therefore, as Akram does not discuss or suggest "a single active semiconductor component arranged on the substrate and having an outer electrical contact surface,...wherein...a layer of electrically insulating film is laminated onto the semiconductor component and the substrate in such a way that the electrical contact is exposed," as recited in independent claim 11, claim 11 patentably distinguishes over the reference relied upon. Accordingly, withdrawal of the § 102(e) rejection is respectfully requested.

Further, Akram does not discuss or suggest "producing a single active semiconductor component on a substrate, the single active semiconductor component having an outer electrical contact surface facing away from the substrate;...and laminating a layer of electrically insulating film onto the semiconductor component and the substrate in such a way that the electrical contact is exposed," as recited in independent claim 21. Akram is entirely silent as to the passivation layer being laminated onto the integrated circuit 24 and the die 12 in such as way that the die contact 16 is exposed. Therefore, claim 21 patentably distinguishes over the reference relied upon. Accordingly, withdrawal of the § 102(e) rejection is respectfully requested.

Claims 12 and 23 depend either directly or indirectly from independent claims 11 and 21 and include all the features of their respective independent claims, plus additional features that are not discussed or suggested by the reference relied upon. For example, claim 23 recites that "the layer of electrically insulating film is first applied, and then the electrical contact is exposed by opening a window in the electrically insulating material." Akram specifically discloses that the passivation layer 18 includes openings 68 aligned with the die contacts 16. Thus, Akram does not suggest that the passivation layer 18 is first applied, and then the die contact 16 is exposed hus, Akram does not suggest that the passivation layer 18 is first applied, and then the die contact 16 is exposed by opening a window in the passivation layer 18. Therefore, claims 12 and 23 patentably distinguish over the reference relied upon. Accordingly, withdrawal of the §102(e) rejection is respectfully requested.

III. Rejections under 35 U.S.C. § 103

In the Office Action, at page 5, numbered paragraph 4, claims 11-15 and 18 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,365,498 to Chu

et al. in view of U.S. Patent No. 6,197,613 to Kung et al. This rejection is respectfully traversed because the combination of the teachings of Chu and Kung does not suggest:

> a single active semiconductor component arranged on the substrate and having an outer electrical contact surface,...wherein...a layer of electrically insulating film is laminated onto the semiconductor component and the substrate in such a way that the electrical contact is exposed,

as recited in independent claim 11.

Chu discusses an IC device 20 which includes a substrate 22, a passivation layer 28, a bond pad 24, and a copper trace 40 in communication with the bond pad 24. As conceded by the Examiner, Chu does not suggest that a single active semiconductor component is arranged on the substrate 22 and does not suggest that the component has an outer electrical contact surface. The Examiner alleges that Kung makes up for the deficiencies in Chu. The Applicants respectfully disagree.

Kung discusses an IC device 10 that includes a bond pad 14 on a substrate 12, a passivation layer 20 and an adhesion/diffusion barrier layer 30. Kung does not discuss or suggest a single active semiconductor component arranged on the substrate 12 and having an outer electrical contact surface for communication with an electrical connection line. Kung discusses specifically that the semiconductor structure 10 is built on a silicon substrate 12 with active devices built therein. The active devices in Kung are built in substrate 12 and not on the substrate 12. Further, the bond pad 14 is not a single active semiconductor component that has an outer electrical contact surface for communication with an electrical connection line. The bond pad 14 is designed to be in contact only with a barrier layer, and does not provide an outer electrical contact surface.

In contrast, semiconductor component 3 of the present invention of claim 11, for example, includes a window 61, which allows the discrete passive electrical component connection line 4 to come into contact with the outer surface of the semiconductor component 3. The bond pad 14 in Kung does not allow for access by an electrical connection line, and it is unclear as to how the bond pad 14 of Kung could be incorporated into the apparatus of Chu in order to disclose a single active semiconductor component arranged on the substrate, having an outer electrical contact surface, and being able to be in communication with an electrical connection line from, for example, a capacitor.

In addition, the motivation cited of "having active components, such as transistors, on a semiconductor substrate is well known and conventional in the art of semiconductor devices" is

not a motivation which would have led one of ordinary skill in the art to combine a substrate 12 having active devices built therein and having a bond pad 14 formed thereon with an IC device that includes a bond pad 24, a passivation layer 28, a copper trace 40 and a capacitor 48 to teach a single active semiconductor component arranged on a substrate and having an outer electrical contact surface, where an electrical connection line is able to contact the outer electrical contact surface of the active semiconductor component.

Therefore, as the combination of the teachings of Chu and Kung does not suggest "a single active semiconductor component arranged on the substrate and having an outer electrical contact surface,...wherein...a layer of electrically insulating film is laminated onto the semiconductor component and the substrate in such a way that the electrical contact is exposed," as recited in independent claim 11, claim 11 patentably distinguishes over the references relied upon. Accordingly, withdrawal of the §103(a) rejection is respectfully requested.

Claims 12-15 and 18 depend either directly or indirectly from independent claim 11 and include all the features of claim 11, plus additional features that are not discussed or suggested by the reference relied upon. For example, claim 15 recites that "the discrete passive electrical component is a part of a sensor of a physical variable." Therefore, claims 12-15 and 18 patentably distinguish over the references relied upon. Accordingly, withdrawal of the §103(a) rejection is respectfully requested.

In the Office Action, at page 7, numbered paragraph 5, claims 16, 17, 19 and 20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Chu and Kung and further in view of U.S. Publication No. 2002/0036345 to Iseki et al. This rejection is respectfully traversed.

As discussed above, the combination of the teachings of Chu and Kung does not suggest all the features of independent claim 11. Iseki fails to make up for the deficiencies in Chu and Kung. Therefore, claim 11 patentably distinguishes over the references relied upon.

Claims 16, 17, 19 and 20 depend either directly or indirectly from independent claim 11 and include all the features of claim 11, plus additional features that are not discussed or suggested by the reference relied upon. For example, claim 17 recites that "the power semiconductor component is selected from the group consisting of MOSFETs, IGBTs and bipolar transistors." Therefore, claims 16, 17, 19 and 20 patentably distinguish over the references relied upon. Accordingly, withdrawal of the §103(a) rejection is respectfully requested.

IV. New Claim

New claim 24 recites:

> a layer of electrically insulating film is laminated onto **at least two surfaces** of the semiconductor component and the substrate in such a way that the electrical contact is exposed.

Nothing in the references relied upon discusses or suggests such. Therefore, claim 24 is believed to be in condition for allowance.

Conclusion

In accordance with the foregoing, claim 23 has been amended. Claim 24 has been added. Claims 11-21, 23 and 24 are pending and under consideration.

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date: January 30, 2008

By: _____

Kari P. Footland
Registration No. 55,187

1201 New York Avenue, N.W., 7th Floor
Washington, D.C. 20005
Telephone: (202) 434-1500
Facsimile: (202) 434-1501